COMPUTER SPECIALIST GS-0334-11

INFORMATION SYSTEMS

I. POSITION AND ORGANIZATION INFORMATION

Position:

Computer Specialist, GS-0334-11

Purpose of position:

The work of the position involves analytical and evaluative duties related to computer networks and/or telecommunications with primary knowledge requirements of information processing methodology, information technology, computer capabilities, and processing techniques.

Organization:

Information Systems Division

Organization goals:

II. MAJOR DUTIES

A. Duty (Critical):

Develops and coordinates local information processing technical standards, procedures, and regulatory guidance. (16%)

Tasks:

1. Develops local guidance and procedures for implementation of mandatory technical standards.

2. Works with functional managers to evaluate the impact of proposed standards and procedures on the accomplishment of activity goals and objectives.

3. Disseminates standards to users, provides training and implementation assistance, and reviews and prepares recommendations concerning all requests for waivers of mandatory standards.

4. Evaluates the need for changes in local policies or procedures.

Selected Staffing KSAs:

A1, A2, A3

B. Duty (Critical):

Provides formal and informal training services to functional analysts, programmers, remote processing customers, configuration management personnel. (16%)

Tasks:

1. Presents training material on subjects such as operating system architecture and capabilities, system generation alternatives, configuration alternatives, data file management, system utility capabilities, standards and procedures, configuration management, performance management, capacity planning, and telecommunications network control and management.

2. Presents courses to a wide variety of personnel from trainees to top management officials.

3. Conducts workshops and classes, lectures, leads discussions and seminars, answers questions from participants, evaluates course feedback to determine problem areas and develop improvements.

4. ~~Assists higher graded specialists in developing curricula and new courses.~~

5. Performs a wide variety of other duties such as conducting special studies, assisting in the development of new training methods or techniques, and evaluating contractor-developed courses.

Selected Staffing KSAs:
A1, A2, A3

C. Duty (Critical):
Implements new system hardware and software and develops local operating procedures. Monitors the ongoing operation of the network. (16%)

Tasks:
1. Receives network, communications, and related operating systems from various sources such as design centers and commercial vendors; maintains an inventory of all network hardware and software.

2. Installs, configures, and trouble-shoots network and application server hardware, operating system software, and peripheral network equipment such as routers, bridges, cabling system, network interface cards, modems, multiplexers, and concentrators.
Changes the components of existing equipment for efficient operation.

3. Develops and maintains local procedures for networks, system operations, and product assembly and installation.

4. Implements all network operating system and/or application software and maintains contact with software suppliers to insure that current releases of software products are in use.

5. Conducts testing to insure operability, efficiency, and compliance with existing standards.

6. Monitors operation of the network and ensures that hardware and software are functioning properly and that operation standards are met. Reviews, evaluates, and fine tunes components to achieve peak efficiency within the overall network connectivity.

7. Function tests the hardware and software to resolve technical problems and makes the appropriate on-site repairs.

8. Provides ongoing support, resolution of problems, and recovery of

operating malfunctions involving various hardware components and software failures.

9.   Performs system backups to insure expedient restoration of the data base for the respective network equipment.

11.   Participates with user support personnel to train office personnel and functional end users on use of office automation computers, local and wide area networks, and other automated tools.

12.   Recommends and prepares operating policies and procedures for networks, system operations, and product assembly and installation.

13.   Maintains technical proficiency by attending expositions and meetings and through review of current communications and computer literature.

Selected Staffing KSAs:
A2, A3, A4

D.   Duty (Critical):
Analyzes equipment and software reliability and utilization reports to identify and correct problem areas and to establish computer and telecommunications performance levels. (16%)

Tasks:
1.   Conducts analyses of network usage, user complaints, traffic interruptions, hardware and software capabilities, and other relevant factors.

2.   Identifies adverse trends, ineffective practices or procedures, equipment shortcomings, etc.

3.   Recommends methods and procedures and coordinates corrective action to optimize utilization of present equipment.

4.   Uses benchmarks and performance measurement and evaluation data, in conjunction with modeling and simulation techniques, in planning for increased capacity and for supporting any additional workloads.

5.   Develops recommendations or proposals involving a variety of specialized systems and state-of-the-art enhancements designed to meet unique local requirements and improve operational efficiency.

6.   Works with technical support personnel in resolving critical problems.

Selected Staffing KSAs:
A3

E.   Duty (Critical):
Prepares testing and implementation plans. Establishes test criteria and data to ensure all program modules and outputs for assigned project are tested for completeness and accuracy. (16%)

Tasks:

1. Participates in system acceptability testing and implementation.

2. Meets frequently with other programmers and functional area specialists to coordinate work and resolve problems.

3. Evaluates test results and initiates corrective actions.

4. Develops and executes procedures to periodically monitor the logical/physical integrity of data.

Selected Staffing KSAs:
A2

F. Duty (Critical):
Provides instruction to functional area users on database and file accessing techniques, search strategies, processing and space utilization efficiencies, database security procedures, backup and program recovery techniques, and testing techniques. (20%)

Tasks:
1. Provides customer assistance to current and potential users.

2. Installs shrink-wrapped/COTS (commercial off the shelf) software.

3. Provides formal or informal training to ensure users understand the relationships of the system and are able to operate it without undue interruption.

4. Prepares user manual or instructions for assigned applications.

Selected Staffing KSAs:

III. KNOWLEDGES, SKILLS AND ABILITIES (KSAs)

A. Selected Staffing KSAs:
1. Ability to apply a knowledge of systems analysis and design methodologies
2. Knowledge of information processing standards and procedures
3. Ability to apply knowledge of current automation technology and practices
4. Knowledge of computer network administration

B. Basic Training Competencies:
1. Ability to apply a knowledge of systems analysis and design methodologies
2. Knowledge of information processing standards and procedures
3. Ability to apply knowledge of current automation technology and practices
4. Ability to give oral presentations
5. Ability to communicate in writing
6. Knowledge of communications connectivity requirements
7. Knowledge of computer network administration
8. Knowledge of the objectives, overall design, and operating characteristics of related hardware and software
9. Ability to formulate programming specifications

IV.   CLASSIFICATION FACTORS

Factor 1. Knowledge   **Level 1-7 (1250 Points)**

   1. - Knowledge of agency information processing standards, policies, and
procedures to analyze and advise managers on systems matters and evaluate the
need for changes in existing policies and procedures.

   2. - Knowledge of equipment characteristics, computer techniques,
requirements, methods, and procedures to include familiarity with approaches
used by organizations in other agencies and/or the private sector in order to
evaluate alternatives and provide advice and assistance to managers.

   3. - Knowledge of systems design and development techniques and agency
policies and procedures. Skill in relating aspects and parts of a project to
the overall needs of the organizations served. Knowledge of new or revised
policies, practices, and technical management guidelines to provide advisory
services, consultation, technical assistance, and/or training.

   4. - General knowledge of the mission, objectives, terminology, and
management practices in the activity, the agency, and the department to
recognize probable areas of interaction and overlap between proposed and
existing systems.

   5. - Ability to identify needed network system modifications and to relate
all aspects of the work to the network and user requirements.

   6. - Detailed and specific knowledge of the work processes, data models,
work rules, file/database designs, and computer and operating procedures
applicable to the network operation.

   7. - Knowledge of state-of-the-art practices of data automation to advise
on alternative approaches in application system development and/or problem
resolution related to networks and/or telecommunications.

   8. - Knowledge of hardware and software systems network operations
function, communication protocols, diagnostic tools to recover data, analyze
customer problems, and provide assistance.

   - Knowledge of technical microcomputer/mainframe integration and
communication and/or distributed processing techniques to resolve questions
related to telecommunications equipment and connectivity.

   9. - Understanding of the capabilities and limitations of the activity's
computer equipment configuration, system software, utility programs and
programming aids available in order to carry out network and/or
telecommunications programs and projects and coordinate efforts with others
affected in the organization.

   10. - Knowledge of department, agency, command, and installation ADP
procedures and standards as they relate to limitations on design approaches,
coordination requirements, programming specifications, and documentation

related to networks.

11. - Skill in adapting proven approaches in the formulation of programming specifications for new systems and major changes to existing systems.

Factor 2. Supervisory Controls   Level 2-4 (450 Points)

The supervisor provides general guidance, as to scope and priorities of projects in the assigned area and, in consultation with the employee, determines time-frames and possible shifts in staff assignments. Employee plans, organizes, and carries out assignments, coordinates work with others, determines the approach and methodology to be used, and keeps the supervisor apprised of potential problems. The employee clears with the supervisor approaches that may have potential policy impact. Completed work is reviewed for its effectiveness in meeting user requirements, accuracy of estimated time frames and projected problem areas, and effectiveness in coordinating the project with other groups.

Factor 3. Guidelines   Level 3-3 (275 Points)

Guidelines primarily consist of Federal, department, agency and local regulations, policies, standards, and objectives, and existing systems which provide useful models. The employee uses judgment in adapting design approaches successfully used in precedents to the assigned projects. Judgment is required in relating precedent approaches to specific situations.

Factor 4. Complexity   Level 4-4 (225 Points)

The work involves independent accomplishment of several stages in the automation of a work process, including participation in defining the problem, designing a solution, and system testing. A variety of techniques and methods are needed to evaluate alternatives. Deciding what needs to be done typically involves assessment of situations complicated by conflicting requirements which must be analyzed to determine the applicability of established methods. Technical approaches often must be tested and projections made. Consideration must be given to probable areas of future change in system design, equipment layout, and other factors that will affect decisions. Although data provided by previous users and/or tests usually do not provide conclusive results about the desirability of the proposals in the local environment, proposals seldom are unprecedented in nature since they are typically modifications or new releases based on approaches already known to work.

Factor 5. Scope and Effect   Level 5-3 (150 Points)

The work involves formulating recommendations, analyzing a variety of unusual problems, questions, or conditions associated with networks and related systems. The work affects a wide range of customers using locally designed and/or standard systems. Work products primarily support local users.

Factor 6. Personal Contacts   Level 6-3 (60 Points)

Personal contacts include other analysts and programmers, and functional area users in other organizations within the activity. In addition, contacts often take place with computer personnel of other agencies, representatives of professional associations, equipment or system software vendors, and contractors. On an irregular basis contacts may also include the head of the employing agency or program officials several managerial levels above the

employee.

Factor 7. Purpose of Contacts   **Level 7-2 (50 Points)**

The purpose of contacts is to plan, coordinate, advise on work efforts, or to resolve problems. Occasionally makes presentations to users and other ADP personnel to persuade them to use certain specific technical methods and procedures.

Factor 8. Physical Demands   **Level 8-2 (20 Points)**

The work requires some physical exertion such as recurring activities such as bending crouching, stooping, stretching, reaching, and lifting of moderately heavy objects such as boxes of project files.

Factor 9. Work Environment   **Level 9-1 (5 Points)**

The work is performed in a typical office setting. Special safety precautions are not required.

V.   CLASSIFICATION SUMMARY

In this position:

Duty A.   16% GS-0334-11 Computer Specialist
           Standards Management and Coordination

Duty B.   16% GS-0334-11 Computer Specialist
           Training Services

Duty C.   16% GS-0334-11 Computer Specialist
           Network Operations

Duty D.   16% GS-0334-11 Computer Specialist
           Network/Telecommunications Analysis

Duty E.   16% GS-0334-11 Computer Specialist
           System Performance Evaluation

Duty F.   20% GS-0334-11 Computer Specialist
           Technical Instruction

The classification criteria are contained in the OPM FES Position
Classification Standard for the Computer Specialist Series, GS-334 (TS-106,
dated July 1991).

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GS-11 Point range: 2355 - 2750
Total Point: 2485
Grade: GS-11